JAMES TEMPLE.

Improvement in Car Brakes.

No. 123,133. Patented Jan. 30, 1872.

Fig. 1.

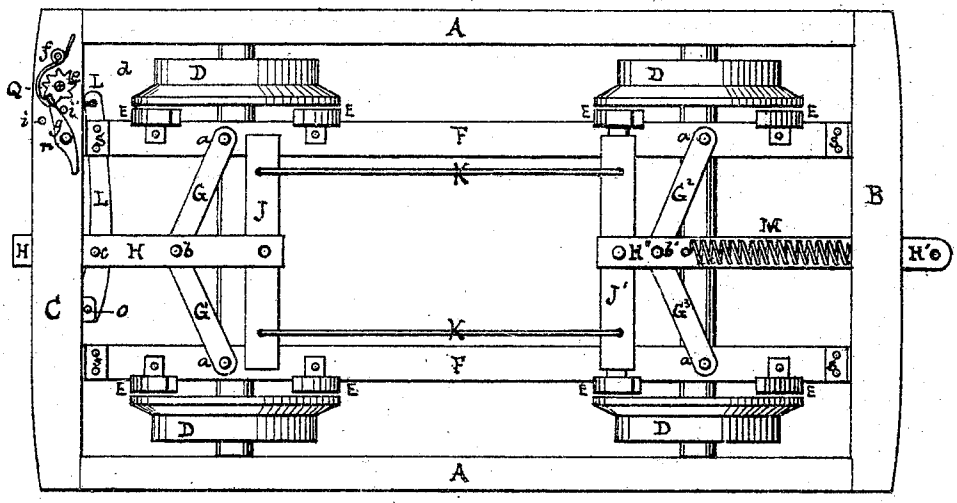
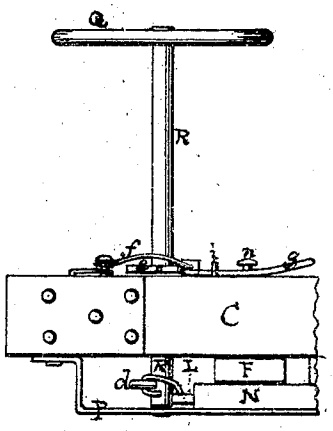


Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES TEMPLE, OF BELLEFONTE, ASSIGNOR TO JACOB SNYDER, OF DANVILLE, PENNSYLVANIA.

IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. 123,133, dated January 30, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, JAMES TEMPLE, of Bellefonte, in the county of Centre and State of Pennsylvania, have invented an Improved Car-Brake; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawing, in which—

Figure 1 is a top view of my improved brake, and Fig. 2 is a front elevation of the end of the truck-frame to which the brake-wheel is attached.

The same letter indicates the same part in both figures.

My invention relates to that class of car-brakes in which the friction of the rubbers is applied to the inner surfaces of the wheel-flanges; and consists in a peculiar combination of toggles and brake-bars with a spring and mechanism for operating the whole, by which the car-wheels are released from the contact of the rubbers by the act of winding up the brake-chain, and the brakes are applied to all the wheels of the truck at once by the action of the spring upon the release of the chain-shaft, as hereinafter more particularly set forth.

In the accompanying drawing, A marks the side timbers of the truck-frame, and B and C the end timbers. The wheels D, of usual form, are attached to the truck in the ordinary manner. The brake-blocks or rubbers E are fastened to the longitudinal bars F F, which are supported upon cleats N attached to the end timbers of the truck-frame, are allowed lateral movement only, being prevented from sliding longitudinally by the angle-irons *s s*. Pivoted at *a a a a* to these brake-bars F are the toggle-arms G G^1 G^2 G^3, which connect them with the sliding longitudinal bars H H′, to which the arms G G^1 and G^2 G^3 are, respectively, pivoted at *b* and *b′*. The bars H H′ slide longitudinally, being drawn in one direction by the spring M and in the opposite direction by the lever L, operated by the brake-chain *d*, wound around the upright shaft R, on top of which is the hand-wheel Q. The bars H H′ are, respectively, attached to the transverse bars J J′, which are connected by the longitudinal rods K K′, as clearly shown. The lever L is of the second class, having its fulcrum at *o*, where it is pivoted to the head timber C. It is pivoted at *c* to bar H, and to its free end is attached the brake-chain *d*, which winds around the lower end of shaft R in the ordinary way. On shaft R is a ratchet-wheel, *e*, which receives a pawl, *g*, actuated by a spring, *f*. This pawl is so hung on its pivot *n* and between guide-pins *i i* as to have both horizontal and vertical movement. It is released from engagement with the teeth or ratchet-wheel *e* by pressing upon the free end. The lower end of rod R rests upon an iron strap, P, attached to the end timber C, as shown in Fig. 2.

The operation is as follows: To release the brake the brakesman, by means of the hand-wheel, winds up the chain *e*. To apply the brake he presses down with his foot the free end of pawl *g*, which releases the lever L and allows the spring M to draw the bars H H′ toward the end B of the truck, and thus force the brake-bars F F outward, applying the rubbers E to the inner surfaces of the wheel-flanges.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination and arrangement of the rubbers E, bars F F, toggles G G^1 G^2 G^3, bars J J′, rods K K′, spring M, lever L, chain *e*, and shaft R, with its ratchet and spring-pawl, all constructed and operating in the manner and for the purpose specified.

The above specification of my said invention signed and witnessed at Danville this 8th day of July, A. D. 1871.

JAMES TEMPLE.

Witnesses:

WM. C. JOHNSTON,

WM. P. JONES.